

REMARKS

This paper is in response to the Office Action mailed on July 29, 2004.

Claims 3, 6, 16, 21, 26, 35, 35, 39, 41, 46, and 47 are amended, claim 36 is canceled, and claims 56-75 are added; as a result, claims 1-35 and 37-75 are now pending in this application.

Claims 3, 6, 16, 21, 26, 41, 46 and 47 are rewritten by expressly rewriting the subject matter of the respective parent claims into the rewritten claims. These claims are not amended due to a rejection based on patentability. The rewriting of these claims does not narrow the scope of the claims.

§102 Rejection of the Claims

Claims 1-2, 4-5, 7-9, 12-15, 17-20, 22-25, 27-34, 36-39, 42, 44-45, 48, and 53-55 were rejected under 35 USC § 102(e) as being anticipated by Sakamoto (U.S. 6,157,414). Applicant respectfully traverses as a *prima facie* case of anticipation has not been made.

Applicant requests clarification of the Office Action. The second paragraph of Office Action page 2 recites the basis of the rejection is Sakamoto. However, subsequent discussion of the rejection refers to a Kesatoshi. If the next communication from the USPTO is not a Notice of Allowance, applicant requests that the next Office Action not be made final.

Applicant can not find all of the features of claim 1 in Sakamoto. Claim 1 recites in part “an interpolation filter, wherein the interpolation filter is to upscale the source image to an intermediate image, wherein the intermediate image has a size equal to a size of the destination image adjusted by a scale factor.” The Office Action refers to col. 2 lines 16-46. However, applicant is unable to find these features of claim 1 in Sakamoto. For example, Sakamoto does not recite a scale factor or an intermediate image that is equal to the destination image adjusted by a scale factor. Based at least on the above, applicant asserts that claim 1 is allowable. Reconsideration and allowance of claim 1 are respectfully requested.

Claims 2 and 4 are allowable at least because they depend from claim 1. Additionally, claim 4 recites “a second average filter to average vertically the intermediate image on a two-by-two pixel basis.” Applicant is unable to find this feature in Sakamoto.

Applicant can not find all of the features of claim 5 in Sakamoto. Claim 5 recites in part “upsampling the source plurality of pixels to an intermediate plurality of pixels, wherein the intermediate plurality of pixels has a size equal to a size of the destination plurality of pixels

adjusted by a scale factor; and downscaling the intermediate plurality of pixels to the destination plurality of pixels.” The Office Action refers by reference to col. 2 lines 16-46. However, applicant is unable to find these features of claim 5 in Sakamoto. For example, Sakamoto does not recite upscaling and downscaling. Further, Sakamoto does not teach upscaling the source plurality of pixels to an intermediate plurality of pixels, wherein the intermediate plurality of pixels has a size equal to a size of the destination plurality of pixels adjusted by a scale factor. Still further, Sakamoto does not teach a scale factor. Based at least on the above, applicant asserts that claim 5 is allowable. Reconsideration and allowance of claim 5 are respectfully requested.

Claims 12-14 depend from claim 10, which was not rejected as anticipated by Sakamoto. As dependent claims include the limitations of the parent claim, claims 12-14 are not anticipated by Sakamoto as set forth in the Office Action. Specifically, the Office Action states that Sakamoto does not teach a graphics card (See Office Action page 4). Withdrawal of the anticipation rejection of claims 12-14 is requested.

Claim 15 recites, in part, “an interpolation filter to upscale a source plurality of pixels to an intermediate plurality of pixels, wherein the intermediate plurality of pixels has a size equal to a size of a destination plurality of pixels adjusted by a scale factor; and a first average filter communicatively coupled to an output of the interpolation filter, wherein the first average filter is to downscale the intermediate plurality of pixels to the destination plurality of pixels.” Applicant can not find these features in Sakamoto. Specifically, claim 15 recites an interpolation filter to upscale and a first average filter is to downscale the resulting pixels from the interpolation filter. Further claim 15 recites a scale factor. Sakamoto does not teach these features. Based at least on the above, applicant asserts that claim 15 is allowable. Reconsideration and allowance of claim 15 are respectfully requested.

Claims 17-19 are allowable at least because they depend from claim 15.

Claim 20 recites, in part, “upsampling a source plurality of pixels to an intermediate plurality of pixels, wherein the intermediate plurality of pixels has a size equal to a size of a destination plurality of pixels adjusted by a scale factor; and downscaling the intermediate plurality of pixels to the destination plurality of pixels.” Applicant can not find these features in Sakamoto. Specifically, applicant can not find upscaling to an intermediate plurality of pixels

and downscaling the intermediate plurality of pixels in Sakamoto. Further applicant can not find a teaching of a scale factor in the cited portions of Sakamoto. Sakamoto does not teach these features. Based at least on the above, applicant asserts that claim 20 is allowable.

Reconsideration and allowance of claim 20 are respectfully requested.

Claims 22-24 are allowable at least because they depend from claim 20.

Claim 25 recites, in part, “an interpolation filter to upscale a source plurality of pixels to an intermediate plurality of pixels, wherein the intermediate plurality of pixels has a size equal to a size of a destination plurality of pixels adjusted by a scale factor, and a first average filter to downscale the intermediate plurality of pixels to the destination bitmap.” Applicant can not find these features in Sakamoto. For example, applicant can not find in Sakamoto an interpolation filter to upscale . . . to an intermediate plurality of pixels and a first average filter to downscale the intermediate plurality of pixels. Applicant further can not find a scale factor in the cited portions of Sakamoto. Based at least on the above, applicant asserts that claim 25 is allowable.

Reconsideration and allowance of claim 25 are respectfully requested.

Claims 27-29 are allowable at least because they depend from claim 25.

Claim 30 recites, in part, “upsampling a source plurality of pixels to an intermediate plurality of pixels, wherein the intermediate plurality of pixels has a size equal to a size of a destination plurality of pixels adjusted by a scale factor; and downscaling the intermediate plurality of pixels to the destination plurality of pixels.” Applicant can not find these features in Sakamoto. For example, applicant can not find in Sakamoto upscaling . . . to an intermediate plurality of pixels and then downscaling the intermediate plurality of pixels to the destination plurality of pixels. Further, applicant can not find a scale factor in the cited portions of Sakamoto. Based at least on the above, applicant asserts that claim 30 is allowable.

Reconsideration and allowance of claim 30 are respectfully requested.

Claims 31-34 are allowable at least because they depend from claim 30.

Claims 36-39 depend from claim 35, which was not rejected as anticipated by Sakamoto. As dependent claims include the limitations of the parent claim, claims 36-39 are not anticipated by Sakamoto as set forth in the Office Action. Specifically, the Office Action states that Sakamoto does not teach a graphics card (See Office Action page 4). Withdrawal of the anticipation rejection of claims 36-39 is requested.

Claims 42 and 44 depend at least in part from claim 40, which was not rejected as anticipated by Sakamoto. As dependent claims include the limitations of the parent claim, claims 42 and 44 are not anticipated by Sakamoto as set forth in the Office Action. Specifically, the Office Action states that Sakamoto does not teach a graphics card (See Office Action page 4). Withdrawal of the anticipation rejection of claims 42 and 44 is requested.

Claim 45 recited, in part, “an interpolation filter to upscale a source bitmap to an intermediate bitmap, wherein the intermediate bitmap has a size equal to a size of the destination bitmap adjusted by first and second scale factors; and a plurality of first cascaded average filters to horizontally downscale the intermediate bitmap to a destination bitmap, wherein the first scale factor determines the number of the plurality of first cascaded average filters.” Applicant can not find these features in Sakamoto. For example, applicant can not find in Sakamoto an interpolation filter to upscale . . . to an intermediate bitmap and a plurality of first cascaded average filters to horizontally downscale the intermediate bitmap. Further, applicant can not find in the cited portions of Sakamoto a scale factor as recited in claim 45. Based at least on the above, applicant asserts that claim 45 is allowable. Reconsideration and allowance of claim 45 are respectfully requested.

Claims 44 and 48 are allowable at least because they depend from claim 45.

Claim 50 recites, in part, “an interpolation filter, wherein the interpolation filter is to upscale a source bitmap to an intermediate bitmap, wherein the intermediate bitmap has a size equal to a size of a destination bitmap adjusted by a scale factor; and an averaging filter to downscale the intermediate bitmap to the destination bitmap.” Applicant can not find these features in Sakamoto. For example, applicant can not find in Sakamoto an interpolation filter to upscale . . . to an intermediate bitmap and an averaging filter to downscale the intermediate bitmap. Further, applicant can not find in the cited portions of Sakamoto a scale factor as recited in claim 50. Based at least on the above, applicant asserts that claim 50 is allowable. Reconsideration and allowance of claim 50 are respectfully requested.

Claims 53-55 are allowable at least because they depend from claim 50.

§103 Rejection of the Claims

Claims 10, 11, 35, 40, 50, and 51 were rejected under 35 USC § 103(a) as being unpatentable over Sakamoto (U.S. 6,157,414) and further in view of Tse et al. (U.S. 5,473,342). Applicant respectfully traverses as a *prima facie* case of obviousness has not been made.

Claim 10 recites, in part, “interpolation logic to upscale a source image to an intermediate image, wherein the intermediate image has a size equal to a size of a destination image adjusted by a scale factor; and average logic to downscale the intermediate image to the destination image.” Applicant can not find these features in Sakamoto or Tse, either alone or in combination. For example, applicant can not find in Sakamoto or Tse the features of interpolation logic to upscale to an intermediate image and average logic to downscale the intermediate image to the destination image. Further, applicant can not find a scale factor as recited in claim 10 in either Sakamoto or Tse. As all of the features of claim 10 are not found in Sakamoto and Tse, applicant requests allowance of claim 10 and its dependent claims 11-14.

Claim 35 recites, in part, perform bilinear interpolation on a plurality of samples from a source bitmap to produce an intermediate bitmap, wherein the intermediate bitmap has a size equal to a size of a destination bitmap adjusted by a scale factor. Applicant can not find these features in Sakamoto or Tse, either alone or in combination. Specifically, applicant can not find a scale factor as recited in claim 35 in Sakamoto or Tse. Allowance of claim 35 and its dependent claims 37-39 is requested.

Claim 40 recites, in part, “an interpolation filter to upscale a source bitmap to an intermediate bitmap; and a first average filter to horizontally downscale the intermediate bitmap to a destination bitmap.” Applicant can not find these features in Sakamoto and Tse, either alone or in combination. For example, applicant can not find in Sakamoto or Tse an interpolation filter to upscale . . . to an intermediate bitmap and a first average filter to horizontally downscale the intermediate bitmap to a destination bitmap. Allowance of claim 40 and its dependent claims 42 and 44 is requested.

Claim 50 recites, in part, “an interpolation filter, wherein the interpolation filter is to upscale a source bitmap to an intermediate bitmap, wherein the intermediate bitmap has a size equal to a size of a destination bitmap adjusted by a scale factor; and an averaging filter to downscale the intermediate bitmap to the destination bitmap.” Applicant can not find these

features in Sakamoto. For example, applicant can not find in Sakamoto an interpolation filter to upscale . . . to an intermediate bitmap and an averaging filter to downscale the intermediate bitmap. Further, applicant can not find in the cited portions of Sakamoto a scale factor as recited in claim 50. Based at least on the above, applicant asserts that claim 50 is allowable.

Reconsideration and allowance of claim 50 are respectfully requested.

Claim 51 is believed to be allowable for substantially similar reasons as stated above with regard to claim 25. Reconsideration and allowance of claim 51 are respectfully requested.

Allowable Subject Matter

Claims 3, 6, 16, 21, 26, 41, 43, 46, 47, and 52 were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant so rewrites these claims. Allowance is requested.

Applicant further submits that claims 7-9 are allowable as each of these claims depend from allowable claim 6.

Claim 49 was allowed.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 349-9587 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

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By



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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 15 day of October, 2004.

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